HEINRICH WILD.

After a long and severe illness Professor Dr. Heinrich Wild died at Zurich, Switzerland, on Friday, September 5. We have already, in the MONTHLY WEATHER REVIEW for March, 1899, pages 105–106, given a short sketch of the important works in meteorology that we owe to this distinguished physicist. From 1856 to 1868 Professor Wild was a professor in the university at Bern, where he did much to establish a uniform system of standards of measurement and devoted his attention to every problem bearing on terrestrial physics. In 1868 he was called to St. Petersburg as director of the Central Physical Observatory, which place he filled until July, 1895, and gave an immense impetus to accurate meteorological and magnetic work throughout the Russian Empire. In the latter year he obtained permanent leave of absence on account of his health and returned to his home in Zurich, where he had been born on December 17, 1833. It is only a few months since we received from Professor Wild an extensive memoir on the Foehn, apparently the last of his numerous publications.

SENOR AUGUSTIN M. CHAVEZ.

We regret to announce the death about the middle of September of Señor Augustin M. Chavez. This distinguished engineer and former superintendent of telegraphs under the Secretary of the Interior organized in 1897 the system of daily telegraphic meteorological reports and weather maps that is now so well established in Mexico. To him also must be attributed the instructions to observers and the comments on the methods of utilizing the weather maps published from time to time in the official documents of the Department of the Interior of the Republic of Mexico.

CORRIGENDA.

August, 1902, p. 403, Table 1, substitute the following corrected copy:

TABLE 1.

Name of planet or satellite.	Critical velocity in meters, v'.	Velocity of the mean square in meters, w.	Density of a gas $H=1$, that will escape as freely as does helium from the earth, ρ'.	Density of gas that will escape as freely as hydrogen, ρ''.	Lightest of the known gases or vapors that will not escape.	Molecular weight.
Moon	2380	257.	39.	78.	Carbondioxide	44
Mercury	4641*	500. 6	10. 25	20. 5	Nitrogen	28
Venus	9546	1029.	2. 56†	5. 12	Water vapor	18
Earth	10500	1133.	2.	4.	Water vapor	18
Mars	4803	517.	9. 57	19. 14	Nitrogen	28
Jupiter	47233	5095.	0. 099	0. 198	Hydrogen	2
Saturn	24508	2633.	0. 37	0. 74	Hydrogen	2
Uranus	17299	1865.	0. 74	1. 48	Hydrogen	2
Neptune	18002	1942.	0. 68	1. 36	Hydrogen	2

* Assuming its rotation period to be 88 days. † Calculated by the writer.

Page 403, column 2, line 18 from bottom for "were" read "are."

Page 403, column 2, line 17 from bottom for "helium" read "hydrogen."

Page 405, Table 2, column 6, heading, omit "in c. c."

Page 405, line 2, below Table 3, after "hydrogen" insert "or helium."

THE WEATHER OF THE MONTH.

By W. B. STOCKMAN, Forecast Official, in charge of Division of Records and Meteorological Data.

CHARACTERISTICS OF THE WEATHER FOR SEPTEMBER.

September, 1902, was an abnormal month and was characterized by a deficiency of pressure generally over the country.

Temperature was below the normal and generally markedly so, in some States lower than for years past, excepting on the Pacific coast and in Idaho, New York, and New England, where it was in excess.

Precipitation was in decided excess in some districts, and generally above the average, except in upper Michigan, the Pacific coast, Plateau and some northwestern districts, northeastern Minnesota, and a few scattered localities on the Atlantic coast, where there was a deficiency, but generally a very slight one.

Cloudiness was generally above the average, except in the Florida Peninsula, North Dakota, and the northern Plateau and north Pacific regions, where it was below, and the west Gulf States and middle Plateau region, where the average obtained.

Relative humidity was generally above the normal, except in the northern and middle Pacific and northern and southern Plateau regions, North Dakota, the Missouri Valley, and the Florida Peninsula, where it was below, and in the southern slope region, where it was normal.

PRESSURE.

The distribution of monthly mean pressure is shown graphically on Chart VI and the numerical values are given in Tables I and VI.

The area of 30.00 inches, or slightly higher, of mean pressure overlay the lower Lake region, Ohio Valley and Tennessee, northern part of the South Atlantic and the Middle Atlantic and New England States; and another area of about the same strength obtained over the north Pacific coast district.

The region of lowest mean pressure was over the Southwestern States and the valley of California; a mean of 29.75 inches for the month was reported from Yuma, Ariz. The districts where the pressure was above the normal were small and scattered, comprising a portion of the Florida Peninsula, the northern two-thirds of New England, the coasts of middle and the northern part of southern California, and the northwestern eighth of the country, with departures not exceeding +.08 inch. In the remainder of the country the pressure was below the normal, with departures no greater than in the region where it was above.

The pressure increased over that of August, 1902, along the Pacific coast, the coast of the Gulf of Mexico generally, North Dakota, the northern portion of the upper Missouri Valley, the upper Mississippi Valley and the upper Lake region; elsewhere it diminished.

TEMPERATURE OF THE AIR.

The distribution of monthly mean surface temperature, as deduced from the records of about 1,000 stations, is shown on Chart VI.

Generally the trend of the isotherms was to the southward of their position in 1901, the most marked departure appearing in the region between the Mississippi River and the Appalachian Mountains.

The mean monthly temperature was slightly above the normal in parts of New York, Pennsylvania, Florida, Alabama, Mississippi, Louisiana, and southern Texas, in New England generally, the western part of the Plateau regions, and in the Pacific districts, except along the northern and the extreme southern coasts; elsewhere it was below the normal, and generally decidedly so, the mean daily departure amounting to from —2° to —6° over the central valleys and the eastern part of the middle slope region.

Maximum temperatures of 90°, or higher, occurred, except in the Lake region and in portions of New England, the Middle Atlantic States, central Appalachian region, upper Mis-

sissippi and Missouri valleys, North Dakota, the slopes and the middle Plateau; of 100°, or higher, in parts of Texas, Arkansas, Oklahoma, Kansas, Utah, Arizona, and California; and of 110° to 115° in western Arizona and southeastern California. Freezing temperatures were reported generally from the Northern States and the Plateau and slope regions.

Extremely low temperatures were observed in several localities, some stations reporting the lowest on record for September. The weather was quite cool during the first week in the Lake region, upper Mississippi Valley and parts of the Missouri Valley; and during the second week in the South Atlantic States generally, and parts of the Missouri Valley, Rocky Mountain and Pacific regions; the third week was below the normal generally throughout the country, and in parts of the west Gulf States, Tennessee and the Ohio, upper Mississippi and Missouri valleys the daily departures averaged —10°, or more, per day. The fourth week was above the normal generally. The lowest September means in twelve years were reported from Arkansas; in fifteen years from Missouri; and in sixteen years from Kansas, in which State the mean at each station was below its normal.

The average temperature for the several geographic districts and the departures from the normal values are shown in the following table:

Average temperatures and departures from normal.

Districts.	Number of stations.	Average temperatures for the current month.	Departures for the current month.	Accumulated departures since January 1.	Average departures since January 1.
		°	°	°	°
New England	8	61.0	+0.3	+ 2.7	+0.3
Middle Atlantic	12	66.5	—0.5	— 4.3	—0.5
South Atlantic	10	73.4	—0.8	— 7.6	—0.8
Florida Peninsula	8	79.9	+0.8	— 2.8	—0.3
East Gulf	9	75.8	—0.1	+ 0.4	0.0
West Gulf	7	74.8	—1.2	+ 4.1	+0.5
Ohio Valley and Tennessee	11	67.3	—1.3	— 7.3	—0.8
Lower Lake	8	63.0	—0.1	— 2.7	—0.3
Upper Lake	10	57.2	—1.8	+ 9.6	+1.1
North Dakota	8	54.3	—3.1	+12.3	+1.4
Upper Mississippi Valley	11	61.4	—3.6	— 0.9	—0.1
Missouri Valley	11	61.0	—4.2	+ 3.3	+0.4
Northern Slope	7	56.7	—1.4	+ 9.3	+1.0
Middle Slope	6	63.7	—4.0	+ 6.3	+0.7
Southern Slope	6	69.4	—3.2	+ 7.4	+0.8
Southern Plateau	13	69.5	+0.5	— 2.3	—0.3
Middle Plateau	9	60.0	—0.6	+ 0.7	+0.1
Northern Plateau	12	58.3	+0.5	+ 2.0	+0.2
North Pacific	7	57.3	—0.1	+ 1.8	+0.2
Middle Pacific	5	64.6	+1.4	— 0.3	0.0
South Pacific	4	69.2	+0.8	— 3.7	—0.4

In Canada.—Prof. R. F. Stupart says:

The temperature was above the average in Quebec and the Maritime Provinces, the greatest positive departures occurring in Prince Edward Island and Cape Breton, and amounting to from 3° to 4°. In Ontario from the Georgian Bay district south to Lake Ontario, and east to the boundary, it was from average to 2° above; elsewhere from average to 3° below, the greatest negative departures being recorded in the Lake Superior region. In Manitoba, the Territories, and British Columbia it varied from average to 4° below, except at a few points in the extreme southern parts of the Territories and British Columbia where it was from average to 1° above. The chief negative departures were at the more northerly stations in British Columbia.

PRECIPITATION.

The rainfall was from 2 to slightly over 4 inches in excess of the normal in parts of Florida, Mississippi, Louisiana, Arkansas, Ohio, Indiana, lower Michigan, western Iowa, Nebraska, southeastern Wyoming, and northeastern Colorado, and slightly more than 5 inches in east-central Tennessee and extreme southeastern South Dakota. Where there was a deficiency the departures were, as a rule, slight, excepting along the north Pacific coast, where they were from 1 inch to 3.4 inches; in the eastern portion of the central part of the South Atlantic States, where they ranged from about 1 inch to 3 inches; in upper Michigan and northeastern Minnesota, where they were slightly over 2 inches; and in scattered localities in eastern South Dakota, western Minnesota, Oklahoma, and northeastern Texas, where they were somewhat over 1 inch.

Monthly amounts of 10 inches or more were reported from Florida, southeastern Texas, Oklahoma, northwestern Iowa, northeastern Pennsylvania, and northeastern Georgia. Practically no rain occurred in California, more than one-half of the stations reporting none; no rainfall also was reported from a number of stations in Arizona and none occurred during the first two weeks in Idaho, and in a large area about the Snake River basin no appreciable amount fell during the month.

Drought conditions were broken during the second week in Pennsylvania, and in West Virginia during the fourth week, but continued in the valley district of Virginia throughout the month. Marked departures above the normal occurred in many districts during the last week.

Snows occurred at several places in Colorado between the 5th and 21st and in Idaho during the latter part of the month.

Average precipitation and departure from the normal.

Districts.	Number of stations.	Average.		Departure.	
		Current month.	Percentage of normal.	Current month.	Accumulated since Jan. 1.
		Inches.		*Inches.*	*Inches.*
New England	8	3.48	109	+0.3	— 2.0
Middle Atlantic	12	4.82	126	+1.0	— 2.9
South Atlantic	10	4.54	85	—0.8	—11.9
Florida Peninsula	8	8.52	109	+0.7	— 2.1
East Gulf	9	6.25	147	+2.0	—10.6
West Gulf	7	4.96	125	+1.0	— 6.7
Ohio Valley and Tennessee	11	3.79	131	+0.9	— 7.1
Lower Lake	8	4.40	147	+1.4	+ 1.1
Upper Lake	10	3.24	94	—0.2	— 2.1
North Dakota	8	0.56	48	—0.6	+ 0.8
Upper Mississippi Valley	11	3.10	97	—0.1	+ 1.8
Missouri Valley	11	3.21	127	+0.7	+ 1.1
Northern Slope	7	1.33	143	+0.4	+ 0.5
Middle Slope	6	2.42	141	+0.7	+ 2.7
Southern Slope	6	4.49	188	+2.1	+ 3.2
Southern Plateau	13	1.05	123	+0.2	— 1.4
Middle Plateau	8	0.49	71	—0.2	— 1.6
Northern Plateau	12	0.47	40	—0.7	— 1.0
North Pacific	7	2.25	65	—1.0	+ 2.0
Middle Pacific	5	0.03	4	—0.7	+ 0.7
South Pacific	4	T.	0	—0.1	— 0.5

In Canada.—Professor Stupart says:

Precipitation was above the average in British Columbia to an amount varying from 0.2 to 0.8 of an inch. In the Territories, Manitoba, and over the western half of the Lake Superior region it was below the average, and in nearly all localities to a marked extent except at Calgary, where there was an excess of 0.2 inch. Battleford and Medicine Hat recorded, respectively, 1 inch below; Swift Current, 0.6 inch below; Minnedosa, 0.8 inch below; Port Arthur, 1.4 inches below. From the eastern portion of the Lake Superior region to the Maritime Provinces the rainfall was above the average, except in a few localities, more especially in a portion of eastern Ontario, where negative departures occurred of 1.5 inches at Kingston and 1.6 inches at Ottawa, and in Cape Breton and Prince Edward Island where there was a deficiency varying from a half to three-quarters of an inch. The chief positive departures were: Port Stanley, 2.4 inches; Parry Sound, 1.5 inches; Owen Sound, 2.9 inches; Quebec, 0.7 inch; Chatham, 1.4 inches.

HAIL.

The following are the dates on which hail fell in the respective States:

Arizona, 4, 15, 20. Arkansas, 1, 11. California, 19. Colorado, 17, 18, 20, 21, 26, 28. Idaho, 25, 27. Indiana, 13, 30. Iowa, 2, 3, 5, 8, 20, 27. Kansas, 26. Maryland, 3. Michigan, 1, 3, 6, 8, 11, 12, 13. Minnesota, 3, 8, 26. Missouri, 26. Nebraska, 2. Nevada, 14, 19. New Hampshire, 9. New Mexico, 1, 4, 18, 20, 28. New York, 4. North Dakota, 6, 20. Ohio, 9, 13, 26. Oklahoma, 26. Oregon, 24. Pennsylvania, 9. Texas, 6, 17, 21. Utah, 15, 16,18, 20. Virginia, 27. Washington, 24, 26, 27. West Virginia, 25. Wisconsin, 3, 5, 8, 17. Wyoming, 16.

SLEET.

The following are the dates on which sleet fell in the respective States: